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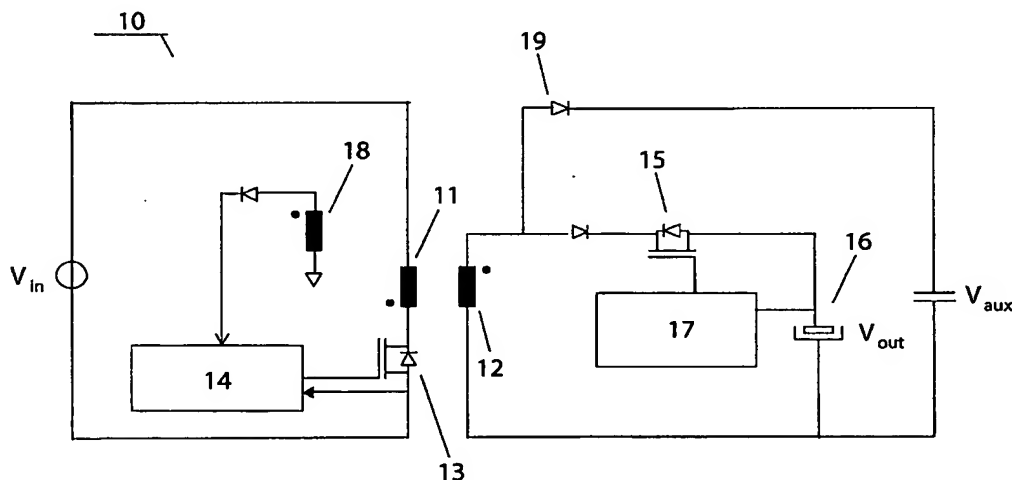
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(54) Title: **OPTOCOUPLERLESS SWITCHED MODE POWER SUPPLY**



(57) Abstract: The present invention relates to a switched mode power supply (10, 20). The basic idea of the present invention is that excess magnetic energy still present in the supply transformer when the current of the transformer commutates from the primary side to the secondary side will be transferred to an auxiliary voltage output (V_{aux}). The auxiliary output voltage is controlled by a sensing means (18, 28) on the primary side of the transformer. The sensing means regulates the auxiliary output voltage by sensing the voltage of the auxiliary output via the transformer. The voltage across the sensing means is directly related to the excess energy of the transformer. This will signal to a primary control circuit (14, 24) to increase/decrease the on-time of a first transistor (13, 23) and increase/decrease the auxiliary output voltage to the desired value. In this way, the excess energy is regulated, whereby the main output voltage (V_{out}) is regulated to a predetermined level.

WO 2005/048442 A1



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